

## ABSTRACT

A channel-estimating apparatus according to the present invention, including:  
an input unit (2) operable to receive several pieces of channel information (5) from a plurality of receivers (10), (11), in which the plurality of receivers (10), (11) are  
5 operable to perform MIMO communication through a plurality of channels; an estimating unit (3) operable to collectively estimate statuses of the plurality of channels in accordance with the several pieces of channel information (5) received by the input unit (2), whereby estimation results (6) are generated; and an output unit (4) operable to feed the estimation results (6) into the plurality of receivers (10), (11). As a result,  
10 interference from other pieces of MIMO communication-adapted communication equipment is suppressible, with consequential improvements in both of quality and capacity of communication.